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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,864	11/05/2003	Yong Wang	200312367-1	7773
22879	7590	03/28/2006	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			NGHIEM, MICHAEL P	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/701,864

Applicant(s)

WANG ET AL.

Examiner

Michael P. Nghiem

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10, 12, 13 and 20-29 is/are allowed.
- 6) ☒ Claim(s) 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment filed on January 11, 2006 has been acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Bowling et al. (US 4,497,030).

Regarding claim 14, Bowling et al. discloses a system (Fig. 2) for determining S-parameters (column 3, lines 16-17) of a network (40), the system comprising:

- means (column 2, lines 14-16; column 3, lines 1-2) for determining **at least one** of waveform parameters (amplitude and phase, column 3, lines 47-49) and reflection coefficients based on single port measurements (measurements at port 41 at some instance in time, column 3, lines 47-54) of the network (40), each of the single port measurements being a measurement at one port (41) of the network (40) (Fig. 2) while

each of the other plural ports (45's) are not measured and are one of open or shorted (shorted, Fig. 2);

- means for computing S-parameters (S parameters) of the network based on the **at least one** of waveform parameters and reflection coefficients (column 3, lines 16-17).

Regarding claim 15, Bowling et al. discloses means for performing single port measurements to enable a determination of the at least one of waveform parameters (column 3, lines 47-54) and reflection coefficients, the determining means computes the at least one of waveform parameters (column 3, lines 47-49) and reflection coefficients based on the single port measurements (column 3, lines 47-54).

Allowable Subject Matter

Claims 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-10, 12, 13, and 20-29 are allowed.

Reasons For Allowance

The **combination** as claimed wherein an S-parameter calculator that computes the S-parameters of the network based on waveform parameters determined based on single port measurements implemented at each of plural ports of the network (claim 1) or a reflection coefficient engine that provides a subset of at least $n-1$ reflection coefficients associated with ports of the multi-port network, and an S-parameter calculator that computes the S-parameters for the n -port network based on the subset of reflection coefficients (claim 10) or means for selecting a set of the reflection coefficients to be implemented by the determining means (claim 16) or the computing means comprises means for determining plural sets of the S-parameters for the network based on different respective sets of the reflection coefficients (claim 18) or waveform parameters based on single port measurements performed at plural ports of the network (claims 20, 28) or determining reflection coefficients based on single port measurements performed at plural ports of the network; and determining S-parameters of the network based on the reflection coefficients (claim 29) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

Applicant's arguments filed on January 11, 2006 have been fully considered but they are not persuasive.

With respect to the 35 USC 102 rejection of claim 14, Applicants argue that Metzger teaches only multi-port measurements to determine S-parameters of a network, and not single port measurements.

Examiner's position is that Bowling teaches single port measurements (at port 41, Fig. 2) to determine S-parameters of a network (40) (column 3, lines 47-54).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

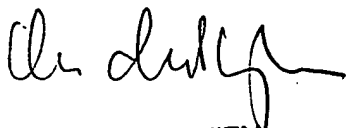
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (571) 272-2277. The examiner can normally be reached on M-H.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

March 24, 2006